

### **REMARKS**

Claims 1, 3-5, 7-10, 18, 19, 24 and 28-36 were previously pending, of which claims 1, 18, 28, 31, 32, 34 and 36 have been amended and claims 29 and 30 have been canceled without prejudice or disclaimer of the subject matter therein. Reconsideration of presently pending claims 1, 3-5, 7-10, 18, 19, 24, 28 and 31-36 is respectfully requested in light of the above amendments and the following remarks.

#### **Allowable Subject Matter**

Applicants note with appreciation the Examiner's statement that claims 31, 32, 34 and 35 would allowable if rewritten in independent form. Claim 31 is hereby amended to independent form by substantially incorporating the limitations of independent claim 29. Claim 31 is further amended to substantially incorporate the limitations of intervening claim 30. Claims 29 and 30 are hereby cancelled and the remaining claims 32, 34 and 35 depend from now-independent claim 31.

#### **Compliance with 35 U.S.C. § 102**

Claims 1, 3-5, 7, 8, 10, 18, 19 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by Ouchi (U.S. Patent No. 6,206,904). Claims 1, 3, 5, 7-9, 18, 19, 24, 28 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by Reznik (U.S. Patent No. 4,393,872) under a first interpretation. Claims 1, 3, 5, 7, 8, and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by Reznik under a second interpretation. Claim 29 was rejected under 35 U.S.C. §102(e) as being anticipated by Adams (U.S. Patent No. 7,094,245).

The PTO provides in MPEP § 2131 that "[t]o anticipate a claim, the reference must teach *every* element of the claim..." In addition, the PTO provides that drawings and pictures can anticipate claims, "[h]owever, the picture must show all the claimed structural features and how they are put together." (MPEP § 2121.04 and § 2125). Drawings (or pictures) "must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art." (MPEP § 2125).

Therefore, to sustain this rejection, either Ouchi, Reznik or Adams must teach each and every element of the claims as herein amended.

**Independent claim 1**

As currently amended, claim 1 requires at least:

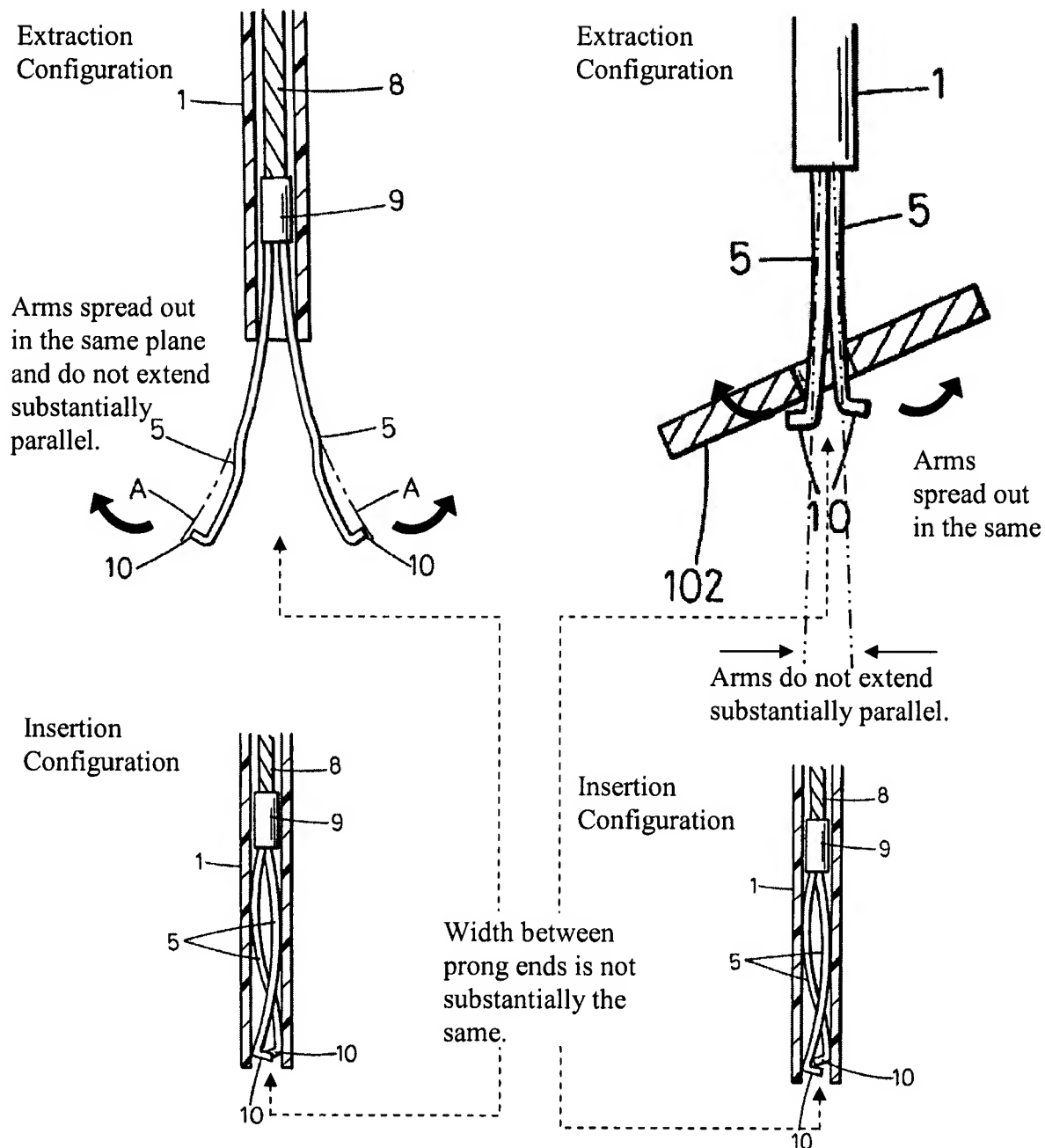
a distal portion transitionable from an insertion configuration to an extraction configuration, wherein the insertion configuration is adapted for displacement along a portion of a prosthetic device, and the extraction configuration is adapted for engaging and extracting the prosthetic device, the distal portion having a natural bias towards the extraction configuration the distal portion including

a first extraction prong with a first distal end extending along a first longitudinal axis and a second extraction prong with a second distal end extending along a second longitudinal axis parallel to the first longitudinal axis, the first and second prongs extending substantially parallel to each other and the first and second longitudinal axes defining a plane wherein the first extraction prong has a first prong width, a first prong thickness and a first prong length and the second extraction prong has a second prong width, a second prong thickness and a second prong length, wherein for both first and second extraction prongs the prong length is greater than the prong width and the prong width is greater than the prong thickness and wherein the first and second prong widths and first and second prong lengths are generally aligned along the plane, the first distal end being laterally spaced apart from the second distal end by a first width transverse to the first and second longitudinal axes, the first extraction prong extending distally from a first location and the second extraction prong extending distally from a second location, the first and second locations being laterally spaced apart from each other by a second width, and wherein the first width between the first and second distal ends of the extraction prongs is substantially the same in the insertion configuration and in the extraction configuration, and wherein the first and second extraction prongs are prevented from moving along the plane, but are configured to deflect above and below the plane; and

a proximal portion connected to the distal portion.

*The Ouchi Reference*

Ouchi teaches that “[a] plurality of foreign body-catching arms 5 are bundled together at the proximal ends and inserted into a connecting pipe 9 and secured therein.” (Col. 4, lines 43-45 and Fig. 7, reproduced below).



Ouchi, Figs. 7 and 8

Ouchi, Figs. 15 and 9

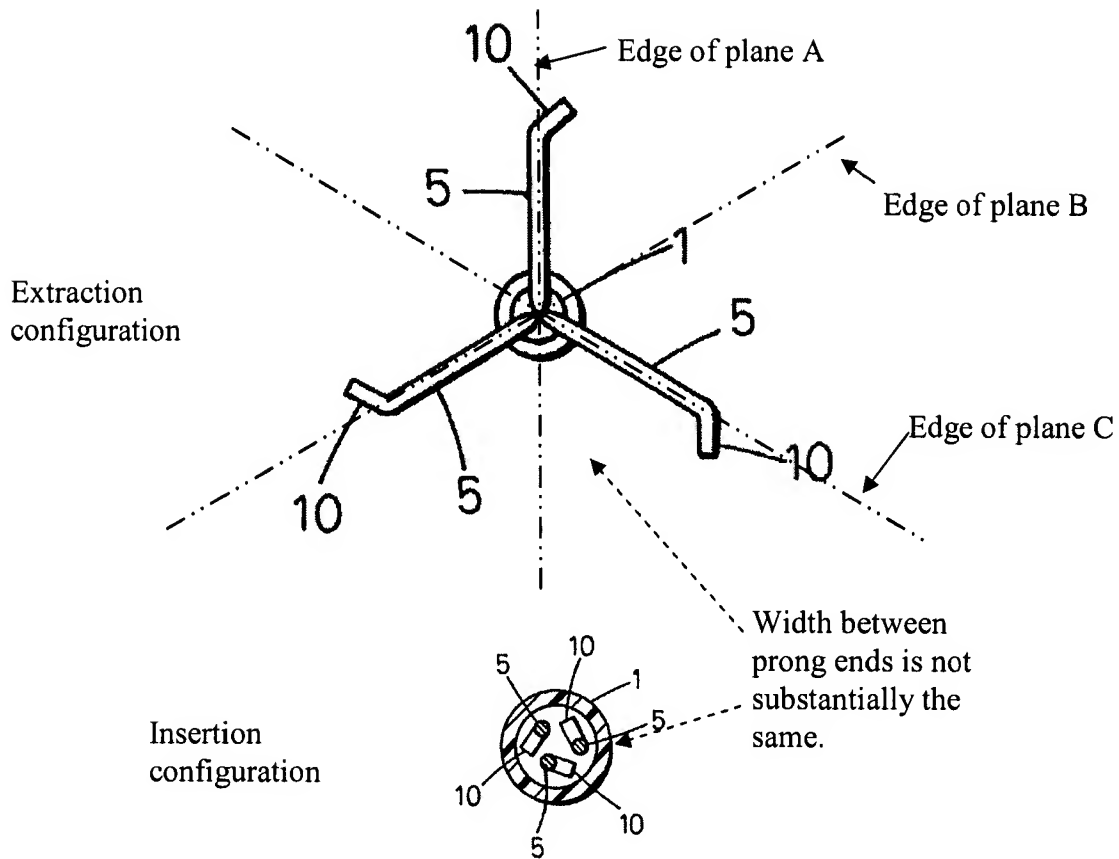
The arms 5 are "formed from a resilient stainless wire or the like that is smoothly curved so as to expand outward." (Col. 4, lines 32-34 and Fig. 10, reproduced below). In every embodiment the plurality of arms opens outwardly from a single location such as "in a beaklike

manner about the pivot shaft 6” or “in a petal-like shape” from the connecting pipe 9. (Col. 3, lines 53-57, Col. 4, lines 49-52, Figs. 1, 5 and 10).

Fig. 7 shows an embodiment with two foreign body-catching arms 5 in an extraction configuration with arms 5 which spread apart in the same plane and do not extend substantially parallel to each other. (Col. 5, lines 10-14). Fig. 8, reproduced herein, shows arms 5 in an insertion configuration. Thus, in this embodiment, arms 5 do not have a first width between distal prong ends that is substantially the same in both the extraction and insertion configurations.

Fig. 15, reproduced herein, also shows two arms 5 which open and close along a single plane and which do not extend substantially parallel to each other. (Col. 6, lines 10-16). Fig. 9, reproduced herein, shows the arms 5 of an embodiment such as that shown in Fig. 15 with the arms 5 in an insertion configuration wherein the arms 5 do not have a first width between distal prong ends that is substantially the same in both the extraction and insertion configurations.

Fig. 10, reproduced herein, shows an embodiment in an extraction configuration wherein three arms 5 each spread out in petal-like fashion along a different plane A, B or C. (Col. 4, lines 49-52). Fig. 11, reproduced herein, shows a cross-section of Fig. 10 with the arms 5 retracted into sheath 1 in an insertion configuration. The arms 5, being made of wire, or the like, have equal prong width and prong thickness. (Col. 4, lines 32-34 and Fig. 11). Thus, arms 5 do not extend substantially parallel to each other with a first width between distal prong ends that is substantially the same in both the extraction and insertion configurations.



Ouchi, Figs. 10 and 11

Therefore, Applicants respectfully assert that Ouchi does not teach at least the elements described above which are required by currently amended claim 1. In particular, the Office Action has not shown how Ouchi teaches (1) first and second prongs with first and second distal ends, which prongs extend substantially parallel to each other and along parallel first and second longitudinal axes, the first and second axes defining a plane, (2) wherein the first and second distal ends are spaced apart by a first width transverse to the first and second longitudinal axes and which width is substantially the same in both insertion and extraction configurations, (3) wherein the first and second prongs each have a length greater than a width and a width greater than a thickness, and (4) wherein the first and second prongs are prevented from moving along the plane, but are configured to deflect above and below the plane, as required by claim 1.

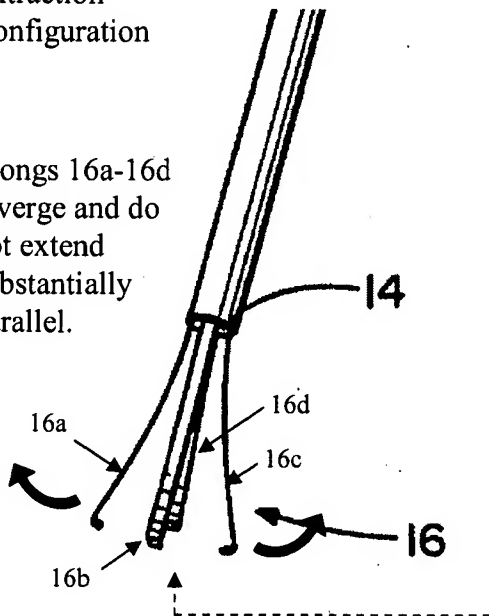
The Reznik Reference (first and second interpretations)

Reznik teaches inwardly facing prongs for capturing bone chips endoscopically. (Abstract and Col. 3, lines 1-6). The “plurality of springy prongs are integrally formed from one end of the tube and may be substantially retracted within the tubular body.” (Col. 1, lines 51-54). In every embodiment the plurality of prongs 16 “upon being extended outwardly from the mouth of the body diverge [and] upon retraction, [they] converge . . .” (Col. 1, lines 54-56). Fig. 5, reproduced below, shows each of the plurality of prongs 16 diverging widely in an extraction configuration. (Col. 2, lines 42-45, Col. 4, lines 20-24, and Fig. 5). Thus by definition, the individual prongs 16a-16d do not extend substantially parallel to each other.

In Fig. 4, reproduced below, the prongs 16a-16d are retracted into tubular body 12 in the insertion configuration. (Col. 4, lines 9-12 and Col. 1, lines 54-57). Thus, the prongs do not extend substantially parallel to each other with a first width between distal prong ends that is substantially the same in both the extraction and insertion configurations.

Extraction  
Configuration

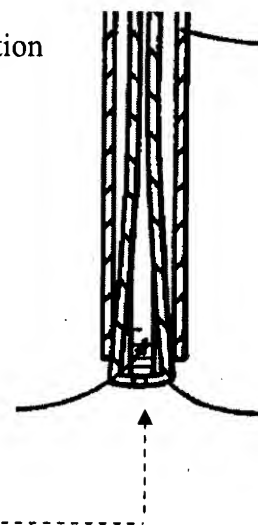
Prongs 16a-16d  
diverge and do  
not extend  
substantially  
parallel.



Reznik, Fig. 5

Insertion  
Configuration

Width between  
prong ends is not  
substantially the  
same.



Reznik, Fig. 4

Therefore, Applicants respectfully assert that Reznik does not teach at least the elements described above which are required by currently amended claim 1. In particular, the Office Action has not shown how Reznik teaches (1) first and second prongs with first and second distal ends, which prongs extend substantially parallel to each other and along parallel first and second longitudinal axes, the first and second axes defining a plane, (2) wherein the first and second distal ends are spaced apart by a first width transverse to the first and second longitudinal axes, which first width is substantially the same in both insertion and extraction configurations, and (3) wherein the first and second prongs are prevented from moving along the plane, but are configured to deflect above and below the plane, as required by claim 1.

Under the Office Action's second interpretation of Reznik, Applicants understand the Office Action to interpret Fig. 4 of Reznik as disclosing both the insertion and extraction configuration. Applicants believe that this rejection is mooted by the amendments to claim 1 and the foregoing discussion. However, even if Fig. 4 *is* interpreted to disclose both the insertion and extraction configurations, all the limitations of claim 1 are still not disclosed, for example, at least item (3) in the preceding paragraph is not disclosed.

Therefore, since at least the required elements discussed above are absent from Ouchi and Reznik, it is respectfully asserted that the rejection of claim 1 is not supported and should be withdrawn.

### **Independent claim 18**

As currently amended, claim 18 requires at least:

A method for using a surgical implant revision device for removing an intervertebral implant, the implant having at least one endplate with an internal surface opposite a bone-contacting surface, the internal surface having a central core projecting therefrom, the core having a core width, the method comprising:

providing a surgical implant revision device having a distal portion transitionable from an insertion configuration to an extraction configuration, wherein the distal portion has a natural bias towards the extraction configuration,

the distal portion including a first extraction prong with a first distal end and a second extraction prong with a second distal end, the

first distal end being laterally spaced from the second distal end by a first width, the first extraction prong extending distally from a first location and the second extraction prong extending distally from a second location, the first and second locations being laterally spaced apart from each other by a second width, the first and second extraction prongs each having respective first and second prong lengths, first and second prong widths and first and second prong thicknesses, wherein for both first and second extraction prongs the prong length is greater than the prong width and the prong width is greater than the prong thickness, and wherein *the first width is greater than either the first or second prong widths and greater than the core width*, the first and second extraction prongs *having a fixed lateral spacing that is at least the first width*;

positioning a first extraction prong adjacent a first lateral portion of an implant and positioning the second extraction prong adjacent an opposing second lateral portion of the implant;

inserting the first and second extraction prongs along the implant inner surface in the insertion configuration, wherein each of the first and second extraction prongs includes a transverse flange, each of the transverse flanges pointing generally in a same direction towards the inner surface of the implant;

transitioning the distal portion to the extraction configuration while substantially maintaining the first width between the first distal end of the first extraction prong and the second distal end of the second extraction prong;

engaging the distal portion with the implant; and  
exerting an extraction force to extract the implant.

(emphasis added).

As best shown in Figs. 7-11 and 15, reproduced above, Ouchi teaches arms 5 that have a varying lateral spacing at the distal end between the insertion and extraction configurations. In addition, Ouchi teaches arms that are essentially touching at their proximal ends since the arms “are bundled together at the proximal ends and inserted into a connecting pipe 9 and secured therein.” (Col. 4, lines 43-45). In all embodiments disclosed by Ouchi, the transverse flanges point in different directions.

Therefore, Applicants respectfully assert that Ouchi does not teach at least the elements described, which are required by the method of currently amended independent claim 18. In particular, the Office Action has not shown how Ouchi teaches (1) the first and second extraction



prongs have a fixed lateral spacing that is at least the first width, (2) wherein first and second extraction prongs have respective first and second prong widths, wherein with the first width is greater than either the first or second prong widths, (3) wherein the first and second prongs each have a prong length greater than a prong width, and the prong width greater than a prong thickness, and (4) wherein the first and second prongs each have transverse flanges that are pointed generally in the same direction toward the inner surface of the implant, as required by claim 18.

As best shown in Figs. 3-5, reproduced above, Reznik teaches prongs 16a-16d that have varying lateral spacing at the distal end between the insertion and extraction configurations. The prongs 16a-16d also have varying lateral spacing along their lengths since they transition from divergence in the extraction configuration to convergence in the insertion configuration. (Col. 1, lines 54-56). In addition, Reznik teaches that the transverse flanges of prongs 16a-16d point in different directions. For example, as shown in Fig. 3, prong 16a points in an opposite direction from prong 16c, prong 16b points in an opposite direction from prong 16d, and prongs 16a and 16c point perpendicularly to prongs 16b and 16d.

Therefore, Applicants respectfully assert that Reznik does not teach at least the elements described, which are required by the method of currently amended independent claim 18. In particular, the Office Action has not shown how Reznik teaches (1) the first and second extraction prongs have a fixed lateral spacing that is at least the first width, and (2) wherein the first and second prongs each have transverse flanges that are pointed generally in the same direction toward the inner surface of the implant, as required by claim 18.

Therefore, since at least the required elements discussed above are absent from Ouchi and Reznik, it is respectfully asserted that the rejection of claim 18 is not supported and should be withdrawn.

#### **Independent claim 28**

As currently amended, claim 28 requires at least:

a distal portion transitionable from an insertion configuration  
to an extraction configuration, wherein the insertion configuration is

adapted for displacement along a portion of the prosthetic device, and the extraction configuration is adapted for engaging and extracting the prosthetic device, the distal portion further comprising:

a mounting block having a axial slot;

an extraction portion including at least a first and a second flexible extraction prong, said first and second extraction prongs extending from the axial slot from bilateral locations laterally spaced apart a first distance from each other, each of the first and second extraction prongs being adapted to be partially deformed when in an insertion configuration and having a natural bias toward the extraction configuration, and wherein *the first extraction prong deflects between the extraction configuration and the insertion configuration along a first plane and the second extraction prong deflects between the extraction configuration and the insertion configuration along a second plane different than the first plane, the first and second planes being substantially parallel to each other, and the first and second planes being fixed apart by the first distance;* and

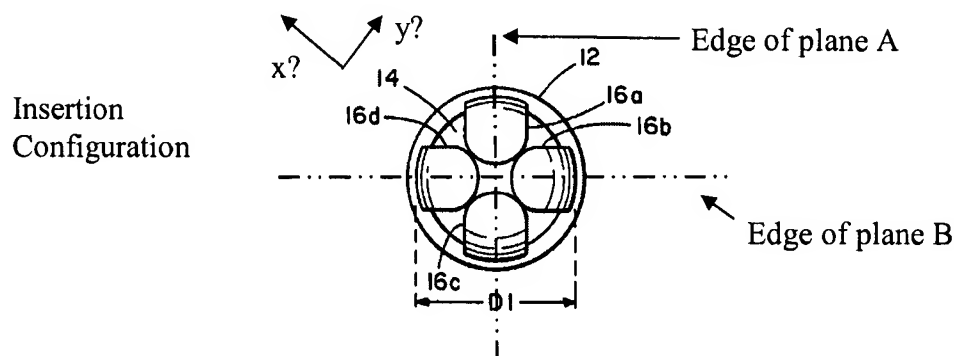
a proximal portion including a substantially rigid shaft connected to the mounting block.

(emphasis added).

The Office Action interpreted the movement of the prongs taught by Reznik to “include components in both the x-direction and the y-direction and the examiner believes that the x-direction components of both prongs are substantially parallel to each other.” (Office Action, page 8). As best understood by Applicants, a prong having a single movement direction with both x and y components does not disclose a prong having a single movement direction in either an x only or y only direction. This may be especially true, as in the present case, where at least two prongs each have a defined line of movement, and where the defined lines of movement are arranged according to a novel design. Therefore, Applicants respectfully oppose the above interpretation because it seeks to extend the disclosure and drawings of Reznik beyond what would reasonably be suggested to one skilled in the art.

As shown in Fig. 3, reproduced below, the prongs 16a-16d are retracted into tubular body 12 in the insertion configuration. (Col. 4, lines 9-12 and Col. 1, lines 54-57). Fig. 3 also shows that prongs 16a and 16c both diverge and converge along plane A, whereas prongs 16b and 16d both diverge and converge along plane B. Thus, if opposing prongs are considered, they will

deflect between extraction and insertion configurations along substantially the same plane, and if adjacent prongs are considered, their respective deflection planes will be intersecting rather than parallel.



Reznik, Fig. 3

Therefore, Applicants respectfully assert that Reznik does not teach at least the elements described, which are required by currently amended independent claim 28. In particular, the Office Action has not shown how Reznik teaches that (1) the first extraction prong deflects between the extraction configuration and the insertion configuration along a first plane and the second extraction prong deflects between the extraction configuration and the insertion configuration along a second plane different than the first plane, the first and second planes being substantially parallel to each other, and (2) the first and second planes being fixed apart by the first distance, as required by claim 28.

Therefore, since at least the required elements discussed above are absent from Reznik, it is respectfully asserted that the rejection of claim 28 is not supported and should be withdrawn.

#### **Independent claim 29**

Claim 29 was rejected as anticipated by Adams. Applicants believe that this rejection has been mooted by cancelling claim 29, and by substantially incorporating its limitations, along with the limitations of claim 30, into independent claim 31.

Dependent claims 3-5, 7-10, 19, 24 and 32-36 depend from, and further limit, independent claims 1, 18, 28 and 31, respectively, and therefore should be allowable as well.

**Compliance with 35 U.S.C. § 103**

Claims 9 and 30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ouchi, claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Reznik, and claims 30 and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over Adams. Claims 4 and 9 depend from and further limit claim 1, and therefore should be allowable. Claim 30 has been cancelled and its limitations substantially incorporated into allowable independent claim 31, thereby mooted this rejection. Claim 36 has been amended to depend from and further limit claim 31, and therefore should be allowable as well.

**Conclusion**

Reconsideration of presently pending claims 1, 3-5, 7-10, 18, 19, 24, 28 and 31-36, and a notice of allowance are hereby respectfully requested. Should there remain any questions, the Examiner is invited to telephone the undersigned.

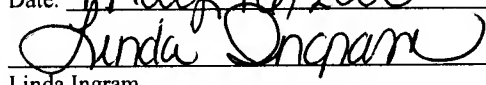
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Linda Ingram